

Records of Wahoo, *Acanthocybium solandri* (Scombridae), from California

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The summers of 2014 and 2015 generated many tales of warm-water fishes being caught in the local southern California sport fishery, including Dolphinfin (*Coryphaena hippurus*), Blue Marlin (*Makaira nigricans*), Shortbill Spearfish (*Tetrapturus angustirostris*), Yellowfin Tuna (*Thunnus albacares*), and Wahoo (*Acanthocybium solandri*) among other tropical species. The news media (both print and television), sport fishing reports, and photographic records of Wahoo caught off California were numerous. For example, Phil Friedman (PFORadio.com) reported Wahoo being caught at 14-Mile Bank, off Orange County (33°23.92'N, 118°00.20'W) on October 4, 2015. Alex Dobuzinskis (Reuters, November 13, 2015) reported that in 2015 there were 256 catches of Wahoo by party boats from Southern California according to Chad Woods of the Sportfishingreport.com. Currently, Kells, Rocha, and Allen (2016) list the range as “recently recorded from Newport Beach and San Diego, CA. Historically south of the U.S.-Mexican border to Peru, including southern Gulf of California and Galápagos Islands.”

There have been unsubstantiated reports from previous years. Pete Thomas writes of a Wahoo being snagged in Alamitos Bay in 2010¹, but, it may have been transported there by long-range fishing vessel and released. In the period of 1997-99 while compiling records of tropical fishes occurring off California during the 1997-1998 El Niño event, Lea and Rosenblatt (2000) received several reports of Wahoo being caught off southern California. However, without photo documentation or a substantiating specimen, these reports were not included. A search of all the museum online databases revealed no preserved museum specimens from north of the United States – Mexico boundary. There is one LACM specimen (37950-1) from the San Pedro Fish Market, California, recorded in 1966 (a year of normal sea surface temperature) but with no specific locality data. This specimen could have reached the market from anywhere in the eastern tropical Pacific. To date, there have been no museum specimens preserved from California waters, this being the first.

The first Wahoo documented from California was caught on August 30, 2014 and weighed in at the Balboa Angling Club in Newport Beach (Western Outdoor News, Sept. 5, 2014). The fish was caught by Eric Kim about 32 km (20 mi.) off Newport near the 267 spot (approx. 33°18'N, 117°50'W). It measured 152.4 cm (60 in.) in length and weighed 22.7 kg (50.1 lbs.). Following this catch there were at least eight additional Wahoo landed in September. These came from three areas: off San Diego (9 Mile Bank and Hidden Bank), San Clemente Island, and the waters outside Dana Point. Weights for these fish were from 15.9 to 21.5 kg (35 to 47.3 lbs.). In late October, a 38.2 kg (84.3 lbs.) fish was caught out of Dana Point Harbor; the water was 22.7° C (72.8° F)². In October there were several reports of Wahoo, in the 18-22 kg (40-48 lbs.) range that were landed by spear fishermen³.

¹ <http://www.petethomasoutdoors.com/2010/09/believe-it-or-not-angler-catches-a-wahoo-in-alamitos-bay.html>

² <http://www.sportfishingmag.com/news/angler-lands-biggest-wahoo-ever-southern-california-waters>

³ <https://www.youtube.com/watch?v=BUgnwL4r2sI>



Fig. 1. *Acanthocybium solandri* collected near Oceanside, California, 2015 (LACM 58300-1, head)

In 2015 the first Wahoo from California was caught on 29 August 2015 and weighed in at the Balboa Angling Club (Western Outdoor News, Sept. 4, 2015). The fish was reported as being caught by Mikko Monte at the 17-Fathom Spot ($17^{\circ}43.70'N$, $119^{\circ}09.60'W$) and measured 151.7 cm (59.75 in.) and weighed 23.8 kg (52.58 lbs.). In October, a Wahoo was caught in Santa Monica Bay, off Redondo Beach, which would establish that latitude as the most northern record to date (Western Outdoor News, October 23, 2015). In mid-December 2015, a Wahoo was caught on hook and line by Shawn Aulby near Oceanside, off Box Canyon ($33^{\circ}10.986'N$, $117^{\circ}26.261'W$) in 91 m (300 ft.) of water. The head and tail were brought to the Natural History Museum by Phil Friedman where they were photographed and cataloged as the first California museum specimen, (LACM 58300-1, Fig. 1). Tissue was taken (T-001257) and stored in the Ichthyology ultracold freezer.

Of the family Scombridae, Wahoo is perhaps one of the most distinctive members of this group, exhibiting a number of unique characters (Collette and Nauen 1983). This species is an elongate scombrid and the posterior end of the maxilla is concealed under the pre-orbital bone. It has a relatively long snout, the snout being about as long as the rest of the head. In this specimen, the snout (139 mm) is slightly shorter than the rest of the head (143 mm) or 49.3% of head length. All of the other scombrid genera known to occur off California have snout lengths

Table 1. Head measurements and ratios of selected scombrid taxa known from California. (FL = fork length, HL = head length, SL = snout length, HD = head depth at middle of eye. *T. albacares* is assumed to be representative of the other species within the genus. Fitch and Craig are measurements from Fitch and Craig (1964).

Taxon	Catalog	FL	HL	HL/FL	SL	SL/HL	HD	HD/SL
<i>Acanthocybium solandri</i>	58300-1		282		139	0.49	100	0.72
<i>Allothunnus fallai</i>	Fitch & Craig	722	187	25.90	55	0.29		
<i>Auxis rochei</i>	6707-1	376	93	24.73	21	0.23	40	1.90
<i>Auxis thazard</i>	6711-8	378	103	27.25	21.5	0.21	42	1.95
<i>Euthynnus affinis</i>	6711-12	200	58.5	29.25	16	0.27	27	1.69
<i>Euthynnus lineatus</i>	52024-14	385	115	29.87	30	0.26	62	2.07
<i>Katsuwonus pelamis</i>	48925-1	488	138	28.28	40	0.29	60	1.50
<i>Sarda chiliensis</i>	32031-1	410	109	26.59	37	0.34	47	1.27
<i>Scomber japonicus</i>	44756-4	209	55.5	26.56	18.5	0.33	23.5	1.27
<i>Scomberomorus concolor</i>	22582	550	114	20.73	37	0.32	45	1.22
<i>S. sierra</i>	32085-27	451	98	21.73	36	0.37	42.5	1.18
<i>Thunnus albacares</i>	48300-1	495	147	29.70	43	0.29	82	1.91

about 21-37% of head length (Table 1). Additionally, the ratio of the head height at the middle of the pupil to the snout length ($100/139 = 0.72$) is low compared to other California scombrids (1.18-2.07) (Table 1).

According to NOAA the El Niño conditions off California have persisted throughout 2015, even into 2016, bringing anomalously warm water to northern latitudes (NOAA, Climate Prediction Center/NCEP, 2016⁴). The addition of Wahoo to the California ichthyofauna brings the number of species of scombrid fishes to 15. The Wahoo has a designation of “Least Concern” on the IUCN Red List of Threatened Species (Collette et al. 2011).

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⁴ http://www.cpc.ncep.noaa.gov/products/analysis_monitoring/lanina/enso_evolution-status-fcsts-web.pdf